

ABSTRACT OF THE DISCLOSURE

An ontology-driven information system includes a plurality of models, each of which expresses an aspect of a business domain using concepts and relationships between concepts. An ontology, which is in communication with each of the plurality of models, provides uniform definitions for the concepts and relationships between concepts used in the plurality of models. A method for executing an interaction flow model includes receiving an event and categorizing the received event. Once the event is categorized, a situation that matches the categorized received event is identified. One or more tasks are then executed for the situation. The execution of the one or more tasks can include either an interpretation of a model or the execution of a method of an object. The information system also includes a user and application interface and a reasoning engine that is in communication with the user and application interface. A knowledge manager is in communication with the user and application interface and is interfaced with the reasoning engine. A distributed information service also is in communication with the reasoning engine, the knowledge manager, and the user and application interface.

BLAPP001/PBM 55 PATENT APPLICATION



(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 1 March 2001 (01.03.2001)

PCT

(10) International Publication Number WO 01/15042 A2

(51) International Patent Classification7:

G06F 17/60

(74) Agent: MARTINE, Peter, B.; Martine Penilla & Kim,

(21) International Application Number: PCT/US00/22804

(22) International Filing Date: 18 August 2000 (18.08.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/150,204 60/165,147

20 August 1999 (20.08.1999) US 12 November 1999 (12.11.1999)

(71) Applicant: BLACK PEARL, INC. [US/US]; 400 Second Street, Suite 450, San Francisco, CA 94107 (US).

(72) Inventors: HAMMITT, Lisa, C.; 1062 Clay Street, San Francisco, CA 94108 (US). BECKERT, Jörg; 2 Bayside Village, Apt. #216, San Francisco, CA 94107 (US).

LLP, 710 Lakeway Drive, Ste. 170, Sunnyvale, CA 94085 (US).

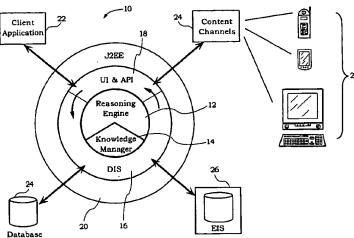
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

Without international search report and to be republished upon receipt of that report.

[Continued on next page]

(54) Title: ONTOLOGY-DRIVEN INFORMATION SYSTEM



(57) Abstract: An ontology-driven information system includes a plurality of models, each of which expresses an aspect of a business domain using concepts and relationships between concepts. An ontology, which is in communication with each of the plurality of models, provides uniform definitions for the concepts and relationships between concepts used in the plurality of models. A method for executing an interaction flow model includes receiving an event and categorizing the received event. Once the event is categorized, a situation that matches the categorized received event is identified. One or more tasks are then executed for the situation. The execution of the one or more tasks can include either an interpretation of a model or the execution of a method of an object, the information system also includes a user and application interface and a reasoning engine that is in communication with the user and application interface. A knowledge manager is in communication with the user and application interface and is interfaced with the reasoning engine. A distributed information service also is in communication with the reasoning engine, the knowledge manager, and the user and application interface.

